SOV/79-28-7-58/64

AUTHORS: Nikiforova, O. K., Suvorov, N. N.

TITLE: I.The Synthesis of 21-Bromopregnanol-17α-Trione-3,11,20 From Pregnanol-3β-Dione-11,20 (I. Polucheniye 21-brompregnanol-17α-triona-3,11,20 iz pregnanol-3β-diona-11,20)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol 28, Nr 7, pp 1984 - 1987 (USSR)

ABSTRACT: Different from Galagher's method (Gallakher)(Refs 1-5) of the bromination of pregnandiol-3α,17α-dione-11,20, and further conversion into the 21-bromine derivative it was converted by subsequent or simultaneous bromination and oxidation into the 21-bromopregnanol-17α-trione-3,11,20; the substitution of bromine in the position 21 by the acetoxy group yielded the acetate of dihydrocortisone. In patent literatur it is mentioned in one place that the selective reduction of pregnantrione does not cause pregnanol-3α-dione-11,20 to form, but pregnanol-3β-dione-11,20 (Ref 6). In another place of patent literature the general scheme for the conversion of the acetate of pregnanol-3β-dione-11,20 into the pregnanol-3β,17α-dione-11,20 is given

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I.The Synthesis of 21-Bromopregnanol-17α-Trione-3,11,20 From Pregnanol-3β-Dione-11,20

without the constants being mentioned. The possibility of the construction of the dioxyacetone side chain from pregnanol-3β-dione-11,20 is of great interest as it substitutes the expensive $NaBH_4$ by nickel and also considerably increases the yields (96% with Ni as compared to 70-72% with $NaBH_4$), which fact is very important for the production of such an expensive preparation as cortisone. The synthesis of 21-bromopregnanol-17α-trione-3,11,20(VII) from pregnantrione-3,11,20 is shown by the given scheme. Different from patent data the enolization of (II) to acetic anhydride and toluene was carried out with sulfosalicylic acid. The formed compound (III) was converted into (IV) by oxidation with monoperphthalic acid. The aqueous methanol solution of sodium was used for the saponification of the oxide (IV) and for the production of (V). The compound (VI) was obtained from the bromination of (V) with dioxane dibromide in methanol; this product was again oxidized easily into compound (VII) by means of N-bromosuccinimide. There are 8 references, 4 of which are Soviet.

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I. The Synthesis of 21-Bromopregnanol-17α-Trione-3,11,20 From Pregnanol-3β-Dione-11,20

SOV/79-28-7-58/64

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze (All-Union Scientific Chemical and Pharmaceutical Research Institute imeni S.Ordzhonikidze)

SUBMITTED: May 25, 1957

1. Bromopregnanol--Synthesis 2. Substitution reactions
3. Cyclic compounds--Chemical reactions

Card 3/3

AUTHORS: Rodionov, V. M.(Deceased), Dudinskaya, A. A., SOV/79-28-8-50/66
Avramenko, V. G., Suvorov, N. N.

TITLE: The Synthesis of β-Amino Acids From Aromatic Oxy and Alkoxy Aldehydes (O sinteze β-aminokislot iz aromaticheskikh oksi-i alkoksial'degidov)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol. 28, Nr 8, pp. 2242 - 2246 (USSR)

ABSTRACT: In connection with earlier investigations by Rodionov (Refs 1-4) this paper gives the results of decomposition reactions carried out with various oxy and methoxy benzaldehydes with malonic acid in the presence of ammonium acetate [modification of the reaction of V.M.Rodionov according to Johnson (Dzhonson)]. In the classical case the reactions under investigation formed a mixture of two products: the β-amino acid (I) and the α,β unsaturated acid (II). With the Rodionov reaction the following was found to be true: salicylaldehyde gives cumarin-3-carbonic acid instead of the β-amino acid; m-oxybenzaldehyde forms β-(3-oxyphenyl)-β-alanine (yield: 52,3%); n-oxybenzaldehyde gives a mixture

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The Synthesis of β-Amino Acids From Aromatic Oxy and Alkoxy Aldehydes SOV/79-28-8-50/66

of diammonium salts of 4-oxybenzylide malonic acid (36,5%) and β-tyrosine (25,5%). Of the corresponding methoxybenzaldehydes the meta- and para-isomers give β-amino acids, while the o-methoxybenzaldehyde gives only the α,β unsaturated acids. Of protocatechualdehyde, vanillinaldehyde, and veratraldehyde only the last forms a β-amino acid. The ortho-substituted benzaldehydes give no β-amino acids by the Rodionov reaction. There are 9 references, 4 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze i Moskovskiy khimiko-tekhnologicheskiy institut imeni D.I.Mendeleyeva
(All-Union Scientific Chemical and Pharmaceutical Research Institute imeni S.Ordzhonikidze and Moscow Chemical Technological Institute imeni D.I.Mendeleyev)

SUBMITTED: June 27, 1957

Card 2/3

The Synthesis of β-Amino Acids From Aromatic Oxy and Alkoxy Aldehydes

SOV/79-28-8-50/66

Card 3/3

SUVOROV, N.N.; MOROZOVSKAYA, L.M.; DUDINSKAYA, A.A.

Hormones of the thyroid gland and their analogs. Part 4: Synthesis of desamino analogs of betazine. Zhur.ob.khim. 28 no.9:2601-2603 S '58. (MIRA 11:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze.
(Tyrosine)

Ivanov N.N.
p. 2

PHASE I BOOK EXPLOITATION SOV/3950

Reaktsii i metody issledovaniya organicheskikh soyedineniy, kn. 9 (Reactions and Investigation Methods of Organic Compounds, Bk. 9) Moscow, Goskhimizdat, 1959. 381 p. Errata slip inserted. 4,000 copies printed.

Eds. (Title page): V.M. Rodionov, Academician (Deceased), B.A. Kazanskiy, Academician, I.L. Knunyants, Academician, M.M. Shemyakin, N.N. Mel'nikov, Professor; Eds. (Inside book): V.P. Yevdakov and V.P. Parini; Tech. Ed.: V.F. Zazul'skaya.

PURPOSE: This book is intended for industrial chemists, aspirants, teachers, and students of higher educational institutions interested in methods of synthesizing organic compounds.

COVERAGE: The collection contains 3 monographic survey articles which review some of the more interesting and important problems in the synthesis of indole derivatives and oxazolones (azlactones) and the bromination of organic compounds with N-bromosuccinimide. Figures, tables, and references accompany each article. No personalities are mentioned.

Card 1/63

Reactions and Investigations (Cont.)

RUBTSOV, M.V., prof., otv. red.; PERSHIN, G.N., prof., zam. otv. red.; MAGIDSON, O.Yu., prof., red.; MASHKOVSKIY, M.D., prof., red.; UTKIN, L.M., prof., red.; RUZHENTSEVA, A.K., prof., red.; SHCHUKINA, M.N., prof., red.; BAYCHIKOV, A.G., kand. tekhn. nauk, red.; MIKHALEV, V.A., kand. khim. nauk, red.; RYAZANTSEV, M.D., kand. tekhn. nauk, red.; SUVOROV, N.N., kand. khim. nauk, red.; PLYASHKEVICH, A.M., st. nauchnyy sotr., red.

[Basic trends in the work of the S.Ordzhonikidze All-Union Chemico-pharmaceutical Scientific Research Institute; survey of its activity from 1920 to 1957] Osnovnye napravleniia rabot VNIKhFI; obzor deiatel'nosti za 1920-1957 gg. Moskva, 1959. 649 p. (MIRA 15:5)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut.
(CHEMISTRY, MEDICAL AND PHARMACEUTICAL)

SUVOROV, N.N.; MAMAYEV, V.P.; RODIONOV, V.M. [deceased]

Synthesis of indole derivatives from arylhydrazones (E.Fisher's reaction). Reakt.org.soed. 9 :7-154 '59. (MIRA:13'6)
(Indole) (Hydrazones)

SOV/79-29-1-69/74

AUTHORS: Suvorov, N. N., Sokolova, L. V., Morozovskaya, L. M., Murasheva, V. S.

TITLE: Steroids (Steroidy). II. Synthesis of Progesterone From Solasodine (II. Sintez progesterona iz solasodina)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 1, pp 329-332 (USSR)

ABSTRACT: The present paper gives experimental data concerning the transformation of solasodine into the hormone progesterone. Solasodine (I) is, as we know, an aglucone of the steroid glucoalkaloids separated from Solanum aviculare Forst. This plant was cultivated in the USSR. A. S. Labenskiy synthesized solasodine. The synthesis of progesterone from solasodine has hitherto not been described. In reference 2 it was only noted that in the case of heating solasodine (I) with acetic acid anhydride in connection with further oxidation and saponification of the reaction products a semi-crystalline product results which was chromatographed, acetylized and separated after further treatment as the acetate of $\Delta^{5,16}$-pregnadienol-3β-on-20 (IV) and 3β-acetoxy-16-methoxy-20-keto-Δ^{5}-pregnene beside

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Steroids. II. Synthesis of Progesterone From Solasodine

other not identified by-products. No details as to reaction conditions and yield were given. It must be emphasized that the transformation of (I) into (IV) can take place in three stages without by-products, however, the exact reaction procedure has hitherto not been found. In contrast with the acetate of the structurally close diosgenine in the case of heating solasodine with acetic acid anhydride the result is not compound (IV) but a completely resinified product. It was found that the oxidizing separation of the double bond (II) → (III) takes place most favorably by oxidation with $Na_2Cr_2O_7$ in acetic acid at room temperature. It is possible to carry out the separation of the side chain under formation of the $\Delta^{16(17)}$ double bond (III) → (IV) in an alkali as well as in an acid medium. In the case of an acid medium the reaction of solasodine into the final product (IV) occurs very smoothly. The yield in the latter amounted to 44% as calculated for (I). This compound is not only the initial product for the synthesis of progesterone and cortisone but also of other steroid hormones (Refs 6-8). The further transformation of (IV) into progesterone was carried

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Steroids. II. Synthesis of Progesterone From Solasodine

out according to Butenandt, Schmidt-Thomé, Oppenauer (Refs 9,10). There are 13 references, 4 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze (All-Union Scientific Chemo-Pharmaceutical Research Institute imeni S. Ordzhonikidze)

SUBMITTED: November 1, 1957

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(3)

AUTHORS: Suvorov, N. N., Sorokina, N. P., Sheynker, Yu. N. SOV/79-29-3-49/61

TITLE: Investigations in the Field of Indole Derivatives (Issledovaniya v oblasti proizvodnykh indola). VI. The Mechanism of E. Fischer's Reaction, Investigation of the Transformations of the Methylphenylhydrazone of the Methylethyl Ketone (VI. Mekhanizm reaktsii E. Fishera. Izucheniye prevrashcheniy metilfenilgidrazona metiletilketona)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 3, pp 979-985 (USSR)

ABSTRACT: The authors showed earlier that the phenylhydrazone of methylethyl ketone gives in the case of heating with the acetic acid anhydride in the presence of n-toluene sulfo acid the 2-(N,N'-diacetyl-β-phenylhydrazine)-butene-2 in a high yield. This compound is the diacetyl derivative of the enhydrazine, the first intermediate product of Fischer's reaction (Ref 1). The problem of the behavior of the methylphenylhydrazone of the methylethyl ketone (1) under analogous conditions was of theoretical interest. The theoretical assumption by the authors that the last reaction is bound to proceed differently from that with the not substituted phenyl-

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hydrazone was experimentally confirmed. By means of distillation in vacuum, the chromatography on aluminum oxide, and repeated re-crystallization five compounds could be separated from the product obtained in the case of boiling of the methyl-phenylhydrazone of the methylethyl ketone with the acetic acid anhydride in the presence of n-toluene sulfo acid. One compound turned out to be an N-methyl acetanilide (II), the other one a β-acetyl-α-methyl-α-phenylhydrazine (III). The formation of these products is explained by the low stability of the N-N- and C-N bonds. The other three compounds were isomeric to one another. They all form 2,4-dinitro-phenyl-hydrazones - a fact which points out the presence of a carbonyl group. The elementary composition, the capability of forming red picrates, as well as their infrared spectra permit the assumption that these compounds are acetyl-1,2,3-trimethyl-indole-isomers and differ from one another only by the position of the acetyl group in the benzene ring. The two figures show the infrared and ultraviolet absorption spectra of the compounds obtained.

Investigations in the Field of Indole Derivatives. SOV/79-29-3-49/61
VI. The Mechanism of E. Fischer's Reaction.
Investigation of the Transformations of the Methyl-
phenylhydrazone of the Methylethyl Ketone

There are 2 figures and 6 references, 3 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze (All-Union Scientific Chemico-pharmaceutical Research Institute imeni S. Ordzhonikidze)

SUBMITTED: February 6, 1958

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5 (3).

AUTHORS: Nikiforova, O. K., Suvorov, N. N. SOV/79-29-7-71/83

TITLE: Steroids (Steroidy). IV. Synthesis of 11-Dehydro Corticosterone From 11-Ketoprogesterone (IV. Sintez 11-degidrokortikosterona iz 11-ketoprogesterona)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 7, pp 2428-2431 (USSR)

ABSTRACT: In the report by I. A. Hogg (Ref 2) and co-workers as well as in American patents (Refs 3, 4) it is indicated in brief that it may be possible to obtain the 11-dehydro corticosterone acetate by condensation of 11-ketoprogesterone with diethyl oxalate. The resultant 21-ethoxy derivative was subjected to further transformations and finally yielded the wanted product. Also similar syntheses according to H. Ruschig (Ref 5) and P. Ruggieri (Ref 6) have to be mentioned. In the report by Hogg no experimental data are given. Besides, the authors had to carry out the synthesis of 11-dehydro corticosterone for pharmacological purposes and further investigations. They synthesized this compound from 11-ketoprogesterone according to the given scheme. The 11-ketoprogesterone (I) was synthesized by oxidation of the acetic acid solution of 11α-oxy-progesterone (Ref 7) with the chromium mixture. The condensation of compound (I) with excess

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diethyl oxalate was carried out in benzene at room temperature with freshly prepared sodium methylate. The aqueous solution of the enolate (II) was transformed into the free ketoester (III) by treating it with dilute hydrochloric acid, for purification reasons. Compound (III) was dissolved in methanol, treated with a calculated quantity of alcoholic sodium hydroxide and re-transformed to give (II). The iodination of (II) with iodine at -20° yields (IV) which was subjected unseparatedly to saponification, under formation of (V), and to a keto cleavage with sodium methylate in methanol at 0°. The substitution of the acetoxy group for the iodine in (VI) by means of potassium acetate in acetone yielded (VII). The technical (VII) was purified by means of adsorption and saponified according to T. Reichstein (Ref 8). The end product is the free hormone (VIII). There are 9 references, 4 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut im. S. Ordzhonikidze (All-Union Scientific Chemico-pharmaceutical Research Institute imeni S. Ordzhonikidze)

Steroids. IV. Synthesis of 11-Dehydro Corticosterone From 11-Ketoprogesterone SOV/79-29-7-71/83

SUBMITTED: June 2, 1958

Card 3/3

5(3) SOV/79-29-9-17/76

AUTHORS: Suvorov, N. N., Yaroslavtseva, Z. A.

TITLE: Steroids. V. On the Selective Reduction of Pregnantrione-3,11,20 With Sodium Boron Hydride in Pyridine

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 9, pp 2889-2893(USSR)

ABSTRACT: In their synthesis of cortisone from solasodine (Ref 1) the authors obtained pregnanol-3α-dion-11,20 (II) in the pure state, in agreement with data from publications, by the selective reduction of the carbonyl group of compound (I) with $NaBH_4$ in pyridine (Ref 2). This was transformed into compound (V) according to scheme 1 modified by T. Gallagher and J. Hogg (Refs 4, 5). From the benzene mother liquor solution resulting from the crystallization of the compound (V), the authors separated the crystalline compound (VI) with the empirical formula $C_{23}H_{36}O_4$. The bands of the infrared spectrum pointed to a hydroxyl-, acetyl-, and carbonyl group. When boiling the compound (VI) with aqueous methanol solution of caustic soda, the well-known pregnandiol-3α-20β-on-11 (VII) is formed. Because of the easy saponification of the acetyl group in 3-position and on the basis of the hydroxyl group in 3-position determined by spectroscopic analysis, product (VI) was ascribed

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Steroids. V. On the Selective Reduction of Pregnantrione-3,11,20 With Sodium Boron Hydride in Pyridine

the structure of 20-acetate of pregnandiol-3α,20β-on-11. Since acetate (VI) cannot form in the transformation process of compound (II) into (V), this acetate was assumed to form from the admixed compound (VII). The above synthesized product (II) was found to contain about 11% of the dioxy derivative (VII). It had been stated in publications (Ref 2) that while compound (VII) results from the reduction of compound (I) with $NaBH_4$ in alcohol, only compound (II) results when making use of pyridine as solvent. Thus, the present paper proves that this sharp selective reduction does not occur; in the reduction of compound (I) with $NaBH_4$ in pyridine, even with clearly insufficient reduction agent, a certain amount of compound (VII) is formed as by-product (Scheme 2). Spectroscopic examinations were made under the supervision of Yu. N. Sheynker, to whom the authors express their gratitude. There are 5 references, 1 of which is Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze (All-Union Scientific Chemico-pharmaceutical Research Institute imeni S. Ordzhonikidze)

SOV/79-29-9-17/76

Steroids. V. On the Selective Reduction of Pregnantrione-3,11,20 With Sodium Boron Hydride in Pyridine

SUBMITTED: July 30, 1958

Card 3/3

SUVOROV, N.N.; SOKOLOVA, L.V.; MAKAROV, N.V.

Reaction between methylmagnesium iodide and steroid ketoxides.
Izv. AN SSSR.Otd. khim. nauk no.12:2257-2258 D '60. (MIRA 13:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut im.S.Ordzhonikidze i Institut khimii prirodnykh soyedineniy AN SSSR.

(Magnesium compounds) (Steroids)

SUVOROV, N.N.; NOVIKOVA, V.M.; SOKOLOVA, L.V.; KOVYLKINA, N.F.

Microbiological transformation of cortisone with the aid of mycobacteria B$_5$. Med.prom. 14 no.1:22-24 Ja '60. (MIRA 13:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(CORTISONE)

SUVOROV, N.N.; MOROZOVSKAYA, L.M.; LEYBEL'MAN, F.Ya.; YERSHOVA, L.I.

Improved method of obtaining progresterone and oxime of Δ 5, 16-pregnadien-3β-ol-20-one acetate from solasodine. Med. prom. 14 no.7:31-33 Je '60. (MIRA 13:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(PROGESTERONE) (OXIMES)

SUVOROV, N.N.; NIKIFOROVA, O.K.; SOKOLOVA, L.V.; KOVYLKINA, N.F.; LEYBEL'MAN, F.Ya.

New synthesis of Reichstein's substance "S." Med.prom. SSSR 14 no.12: 9-12 D '60. (MIRA 13:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(CORTICOSTERONE)

ZHEREBCHENKO, P.G.; GOLOVCHINSKAYA, Ye.S.; KOSTYANOVSKIY, R.G.; KRASNYKH, I.G.; KUZNETS, Ye.I.; MAGIDSON, O.Yu.; MURASHOVA, V.S.; PASTUKHOVA, I.S.; PREOBRAZHENSKAYA, M.N.; SUVOROV, N.N.; TER-VARTANYAN, L.S.; ZHKHINVADZE, K.A.; SHASHKOV, V.S.; SHCHUKINA, M.N.

Role of oxidative deamination in the mechanism of radiation protection afforded by some amines. Zhur.ob.biol. 21 no.2: 157-160 Mr-Ap '60. (MIRA 13:6)

(RADIATION PROTECTION) (DEAMINATION)

SUVOROV, N.N.; DUDINSKAYA, A.A.

Hormones of the thyroid gland and their analogs. Part 5: New synthesis of β-thyroxine. Zhur.ob.khim. 30 no.6:2051-2055 Je '60. (MIRA 13:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze.
(THYROXINE)

SUVOROV, N.N.; SOROKINA, N.P.

Indole derivatives. Part 7: Mechanism of E. Fischer's reactions. Structure of isomeric Bz-ethyl-1,2,3-trimethylindoles. Zhur.ob.khim. 30 no.6:2055-2061 Je '60. (MIRA 13:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(Indole)

SUVOROV, N.N.; MOROZOVSKAYA, L.M.

Steroids. Part 7: Mechanism of the conversion of solasodine into 3β-hydroxy-$\Delta^{5,16}$-pregnadien-20-one. Zhur.ob.khim. 30 no.6:2062-2067 Je '60. (MIRA 13:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(Solasodine) (Pregnadienone)

SUVOROV, N.N.; PREOBRAZHENSKAYA, M.N.

Synthesis of N-(α - β-tetraacetylglucopyranosyl)-indole.
Zhur.ob.khim. 30 no.7:2434-2435 Jl '60. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimikofarmatsevticheskiy institut imeni S.Ordzhonikidze.
(Indole)

SUVOROV, N.N.; MURASHEVA, V.S.

Indole derivatives. Part 8: New synthesis of 5-hydroxtryptamine. Zhur. ob. khim. 30 no.9:3112-3117 S '60. (MIRA 13:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(Tryptamine)

SUVOROV, N.N.; FEDOTOVA, M.V.; OGAREVA, O.B.; BALASHEVA, Ye.G.

Indole derivatives. Part 9: New synthesis of 6-methoxytryptamine.
Zhur. ob. khim. 30 no.9:3118-3123 S '60. (MIRA 13:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(Tryptamine)

SUVOROV, N.N.; SOKOLOVA, L.V.; MAKAROV, N.V.

Interaction between organolithium compounds and steroid keto oxides.
Izv.AN SSSR.Otd.khim.nauk no.5:934 My '61. (MIRA 14:5)

1. Nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut im.
S.Ordzhonikidze i Institut khimii prirodnykh soyedineniy AN SSSR.
(Lithium organic compounds) (Steroids)

ZHEREBCHENKO, P.G.; SUVOROV, N.N.; MURASHOVA, V.S.; PREOBRAZHENSKAYA, M.N.; SOROKINA, N.F.; FEDOTOVA, M.V.

Radioprotective activity of some tryptamine derivatives and their homologues. Med.rad. 6 no.8:27-32 Ag '61. (MIRA 14:8)
(RADIATION PROTECTION) (INDOLE)

SUVOROV, N.N.; MURASHEVA, V.S.

New synthesis of triptamines. Med. prom. 15 no.1:6-11 Ja '61.
(MIRA 14:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonididze.
(INDOLE)

ZHEREBCHENKO, P.G.; SUVOROV, N.N.; SHASHKOV, V.S.; YARMONENKO, S.P.; MOROZOVSKAYA, L.M.

Mechanism of the radioprotective action of 5-hydroxytryptophan. Radiobiologiia 1 no.5:789-791 '61. (MIRA 14:11)
(RADIATION PROTECTION) (TRYPTOPHAN)

last paper on this subject

SOKOLOVA, L.V.; RYZHKOVA, V.M.; SKRYABIN, G.K.; SUVOROV, N.N.

Structure of a product of microbiological conversion of cortisone by means of Mycobacterium B5. Med. prom. 15 no.11:29-31 N '61. (MIRA 15:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze.
(CORTISONE) (MYCOBACTERIUM)

SUVOROV, N.N.; MOROZOVSKAYA, L.M.; SOROKINA, G.M.

Indole derivatives. Part 10: Novel synthesis of 5-hydroxy-tryptophan. Zhur. ob. khim. 31 no.3:936-941 Mr '61.
(MIRA 14:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(Tryptophan)

SUVOROV, N.N.; YAROSLAVTSEVA, Z.A.

Steriods. Part 9: Stereospecificity of the hydration of steroid Δ^4 -3-keto-unsaturated compounds. Zhur. ob. khim. 31 no.4:1372-1377 Ap '61. (MIRA 14:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(Steroids)
(Hydration (Chemistry))

SUVOROV, N.N.; OVCHINNIKOVA, Zh.D.; SHEYNKER, Yu.N.

Derivatives of indole. Part 11: Synthesis of 5-pyridazo-(4,5-b)-indole. Zhur.ob.khim. 31 no.7:2333-2339 Jl '61. (MIRA 14:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(Indole)

SUVOROV, N.N.; SOKOLOVA, L.V.; YAROSLAVTSEVA, Z.A.; OVCHINNIKOVA, Zh.D. Murasheva, V.S.; LEYBEL'MAN, F.Ya.

Steroids. Part 15: Synthesis of cortisone-acetate from 3 -pregnane-17 -diol-11,20-dione. Zhur. ob. khim. 31 no. 11:3715-3718 N '61. (MIRA 14:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(Cortisone) (Pregnanediol)

SUVOROV, N.N.; PREOBRAZHENSKAYA, M.N.

Derivatives of indole. Part 12: Synthesis of 1-(D-β-glucopyranosyl)-indole. Zhur.ob.khim. 31 no.9:2839-2845 S '61. (MIRA 14:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze.
(Indole)

KUZNETS, Ye.I.; SHASHKOV, V.S.; TER-VARTANYAN, L.S.; PREOBRAZHENSKAYA, M.N.; SUVOROV, N.N.; SYCHEVA, T.P.; SHCHUKINA, M.N.

Differences in the action of some monoamine oxidase inhibitors in vitro and in vivo. Dokl.AN SSSR 136 no.5:1231-1234 F '61. (MIRA 14:5)

1. Predstavleno akad. A.N.Bakulevym.
(AMINE OXIDASE) (PHARMACOLOGY)

SUVOROV, N. N.

Dissertation defended for the degree of Doctor of Chemical Sciences at the Institute of Chemistry of Natural Products in 1962:

"Investigations in the Synthesis of Biologically Important Indole Derivatives."

Vest. Akad. Nauk SSSR. No. 4, Moscow, 1963, pages 119-145

KRASNYKH, I.G.; ZHEREBCHENKO, P.G.; MURASHOVA, V.S.; SUVOROV, N.N.; SOROKINA, N.P.; SHASHKOV, V.S.

Radioprotective action of 5-methoxytryptamine and other alkoxytryptamines. Radiobiologiia 2 no.1:156-160 Ja '62 (MIRA 18:1)

KOGAN, L.M.; ORANSKAYA, M.S.; SUVOROV, N.N.; SKRYABIN, G.K.; TORGOV, I.V.

Microbiological transformations of steroids. Report No.1: Preparation of Δ^{1}-pregnene-17α, 20β,21-troil-3-one by means of actinomycetes. Izv. AN SSSR Otd.khim.nauk no.2:302-303 F '62. (MIRA 15:2)

1. Institut khimii prirodnykh soyedineniy AN SSSR i Institut mikrobiologii AN SSSR.

(Pregnene)
(Actinomycetes)

ZHEREBCHENKO, P.G.; KRASNYKH, I.G.; KUZNETS, Ye.I.; SUVOROV, N.N.; SHASHKOV, V.S.; YARMONENKO, S.P.

Radioprotective effect of the combined use of amines. Med.rad. no.3:67-72 '62. (MIRA 15:3)
(RADIATION PROTECTION) (AMINES)

SUVOROV, N.N.; PREOBRAZHENSKAYA, M.N.; UVAROVA, N.V.; SHEYNKER, Yu.N.

Synthesis of benzo-substituted indolylisopropylamines. Izv.AN SSSR Otd.khim.nauk no.4:729-730 Ap '62. (MIRA 15:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut im. S.Ordzhonikidze i Institut khimii prirodnykh soyedineniy AN SSSR.

(Amines)

2

1957

S/205/62/002/001/008/010
D268/D302

27.2400

AUTHORS: Krasnykh, I.G., Zherebchenko, P.G., Kurashova, V.S., Suvorov, N.N., Sorokina, N.P., and Shashkov, V.S.

TITLE: The radioprotective effect of 5-methoxytryptamine and other alkoxytryptamines

PERIODICAL: Radiobiologiya, v. 2, no. 1, 1962, 156 - 160

TEXT: The radioprotective action of 4-, 5-, 6-, and 7-methoxytryptamine, and 5-ethoxy-, 5-propoxy-, 5-butoxy-, and 5-benzoxytryptamine was investigated. 2,900 white mice irradiated at 700 r and 120 white rats at 800 r were studied. There were 3 series of experiments. In the first, results showed that 5-methoxytryptamine gave over 60 % survival in irradiated mice. Further study in the second series revealed a prophylactic effect over a wide dose range (5 - 150 mg/kg) with an average 68.3 % survival at the optimum 75 mg/kg. Administered by intraperitoneal injection even 1 - 2 hours before irradiation there was a maximum 34 % survival, and orally at the optimum 250 mg/kg; 10 - 15 minutes before irradiation, there was 54 %

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The radioprotective effect of ...

survival, whereas serotonin was ineffective. Subcutaneous injection gave the same protection as intraperitoneal. In the third series of experiments on rats irradiated at 800 r survival was 50 - 63 %. Oral administration also gave protection. The experimental data showed the relationship between the chemical structure of some alkoxytryptamines and radioprotection. Structural changes in tryptamine, by introducing the methoxy radical at different positions on the indole ring increased or decreased radioprotection, increase occuring only when the methoxy radical was introduced at the fifth position. 5-methoxytryptamine gave protection comparable to that of serotonin. Its effectiveness may be due to more selective penetration of radiosensitive tissue. There are 4 figures and 11 references: 5 Soviet-bloc and 6 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: P.J.H. Wang, J.G. Kereiakes, Radiation Res., 11, 2, 476, 1959; Z.M. Bacq, and others, Experientia, 15, 5, 175, 1959; Z.M. Bacq, P. Alexander, Fundamentals of radiobiology, London, 1955; Z.M. Bacq, Acta radiol. 41, 1, 1954.

SUBMITTED: August 29, 1961

Card 2/2

40477
S/205/62/002/002/010/015
I020/I215

AUTHORS. Krasnykh, I G., Zherebchenko, P. G., Murashova, V. S., Suvorov, N. N. and Sorokina, N. P.

TITLE: Increased radiation-protective effect of the combined administration of 5-metoxytryptamine and merkamine

PERIODICAL: Radiobiologiya, v. 2, no. 2, 1962, 298–303

TEXT: This is the continuation of a previous study. White mice weighing 18–22 g were irradiated with 700 (LD 95/30), 800, 900, and 1000 r. White rats weighing 150–200 g received 800 r (LD 90/30). One group of animals received 75 mg/kg 5-metoxytryptamine, a second group — 150 mg/kg merkamine, a third received both drugs in the same dosage, and a fourth — no medication. Survival, body weight, amount of leucocyte in the peripheral blood, early degenerative changes in the bone marrow and spleen cells, and the weight of the spleen, thymus, and liver were considered. The combined administration of both drugs resulted in a summation of the radiation-protective effect. The survival was greater, the radiation sickness was milder, and recovery occurred earlier. Treatment of mice irradiated with 1000 r resulted in a 27.5% survival. Degenerative changes in the bone marrow and spleen cells, as well as a decrease in the weight of spleen and thymus, were less

Card 1/2

marked in animals thus treated. When 5-metoxytryptamine was combined with β-mercaptopropylamine good results were obtained, corresponding to those obtained by the combined use of serotonin and merkamin There are 4 figures and 4 tables.

SUBMITTED. August 29, 1961.

SUVOROV, N.N.; PREOBRAZHENSKAYA, M.N.; UVAROVA, N.V.

Derivatives of indole. Part 13: New method of synthesizing α-methyltryptamine. Zhur.ob.khim. 32 no.5:1567-1572 My '62. (MIRA 15:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze.
(Indole)

SUVOROV, N.N.; FEDOTOVA, M.V.; ORLOVA, L.M.; OGAREVA, O.B.

Derivatives of indole. Part 16: Synthesis of 6- and 4-substituted tryptamines. Zhur.ob.khim. 32 no.7:2358-2365 Jl '62. (MIRA 15:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze.
(Indole)

SUVOROV, N.N.; MOROZOVSKAYA, L.M.; YERSHOVA, L.I.

Derivatives of indole. Part 17: Synthesis of α-methyl-substituted tryptophans. Zhur.ob.khim. 32 no.8:2556-2561 Ag '62. (MIRA 15:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(Tryptophan)

SUVOROV, N.N.; KLIMOVA, L.I.; MOROZOVSKAYA, L.M.

Steroids. Part 19: Beckmann rearrangement of the oxime of 16β-(δ-acetylamino-γ-methylvarianoxy)-Δ5-pregnen-3β-ol-20-one acetate. Zhur.ob.khim. 32 no.10:3308-3315 O '62. (MIRA 15:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze i Institut khimii prirodnykh soyedineniy AN SSSR.
(Steroids) (Pregnenone)
(Beckmann rearrangement)

SUVOROV, N. N.

AID Nr. 996-6 24 June

PROPHYLACTIC EFFECT OF 5-METHOXYTRYPTAMINE ON RADIATION SICKNESS IN MONKEYS (USSR)

Krasnykh, I. G., P. G. Zherebchenko, L. F. Semenov, N. N. Suvorov, and K. A. Zeytunyan. Radiobiologiya, v. 3, no. 2, 1963, 259-261.
S/205/63/003/002/016/024

Radiation sickness was induced in rhesus monkeys by subjecting them to γ-irradiation with 607 r at 81 r/min for 7.5 min. Survival of the animals for 30 days after exposure, severity of individual symptoms, and changes in body weight, mean life span, and peripheral blood were used as indices to evaluate the prophylactic effect of 5-methoxytryptamine. The monkeys were given injections of syntomycin and levomycin every other day to prevent dysentery. 5-Methoxytryptamine was administered intramuscularly in a dose of 25 mg/kg 10 min before exposure, or *per os* in a dose of 250 mg/kg 30 min before exposure. The control animals died within 6 to 17 days from severe acute radiation sickness (mean life span, 9.2 days). Disturbances

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PROPHYLATIC EFFECT [Cont'd] S/205/63/003/002/016/024

in the general condition of the control animals became evident by the third day. Towards the end their weight decreased 18 to 28% and the leucocyte count decreased to 3% of the initial level. Hemorrhages, ulcers, and necrosis of the oral mucosa were observed. Of the seven monkeys injected intramuscularly with 25 mg/kg of 5-methoxytryptamine, one survived 30 days; the mean life span of the other six was 17.3 days. Of the eight monkeys given 250 mg/kg of 5-methoxytryptamine *per os*, three survived and the mean life span of the rest was 14.0 days. Symptoms of radiation sickness in the two groups injected with 5-methoxytryptamine were much milder than in the control group. The highest rates of survival and increased life span were found in the group that received 250 mg/kg of the protector *per os*. The general condition of these animals was only slightly affected, their weight loss was only 10%, and they suffered less from hemorrhages than the other two groups. Pneumonia was observed in one out of five monkeys treated *per os* and in three out of six in the control group. 5-Methoxytryptamine proved to be most effective when administered *per os*.

[SGM]

KOGAN, Leonid M.; ULEZLO, I.V.; SKRYABIN, G.K.; SUVOROV, N.N.; TORGOV, I.V.

Microbiological transformations of steroids. Report No.2: Reduction of 17 , 21-dihydroxy-20-keto steroids by means of Actonomyces albus 3006. Izv.AN SSSR.Otd.khim.nauk no.2:328-332 F '63. (MIRA 16:4)

1. Institut khimii prirodnykh soyedineniy AN SSSR i Institut mikrobiologii AN SSSR.

(Steroids--Microbiology)

L 12857-63 EWT(m)/BDS RM
ACCESSION NR: AP3003938 S/0205/63/003/004/0595/0602

AUTHOR: Zherebchenko, P. G.; Suvorov, N. N. 51

TITLE: Relation between the radioprotective and vasoconstrictor effects of indolylalkylamines

SOURCE: Radiobiologiya, v. 3, no. 4, 1963, 595-602

TOPIC TAGS: radioprotector, vasoconstrictor, serotonin, tryptamine halogen derivatives

ABSTRACT: Mice subjected to total-body x-irradiation with 700 r were given injections of aqueous solutions of several haloderivatives of tryptamine and its homologs 5 to 10 min before exposure. A distinct parallelism was found between the radioprotective activity of the preparations and their vasoconstrictor effect. Introduction of a halogen or hydroxy group in the fifth position of the indole ring resulted in increased radioprotective properties. The survival rate of the mice is given as follows: for 5-fluorotryptamine, 70%; 5-chlorotryptamine, 68%; 5-bromotryptamine, 52%; 5-iodotryptamine, 60%; and 5-hydroxytryptamine, 43%. Introduction of halogens in the fourth, sixth, and seventh positions of the indole ring resulted in decreased radioprotective properties. The introduction of a

Card 1/2

L 12857-63
ACCESSION NR: AP3003938 O

methyl group in the alpha position in the molecule of a highly effective radioprotector such as 5-chloro- or 5-bromotryptamine markedly reduced radioprotective properties. The vasoconstrictor effect of the preparations was determined by their effect on bleeding induced by tail snips. Preparations with a halogen, methyl-, or alkoxy-group in the fifth position of the indole ring exerted a vasoconstrictor effect which was almost as pronounced as that of serotonin. Orig. art. has: 5 tables.

ASSOCIATION: none

SUBMITTED: 08Aug63 DATE ACQ: 15Aug63 ENCL: 00

SUB CODE: AM NO REF SOV: 004 OTHER: 021

Card 2/2

PREOBRAZHENSKAYA, M.N.; ORLOVA, L.M.; SUVOROV, N.N.

Synthesis of α-hydroxy-β-methyl-β-(3-indolyl) propionic acid. Zhur. ob. khim. 33 no.4:1378-1379 Ap '63. (MIRA 16:4)
(Indolepropionic acid) (Alkaloids)

POTAPOV, V.M.; TERENT'YEV, A.P.; PREOBRAZHENSKAYA, M.N.; SUVOROV, N.N.

Sterochemical studies. Part 16: Optically active β-(3-indolyl) isopropylamine. Zhur. ob. khim. 33 no.8:2702-2705 Ag '63. (MIRA 16:11)

PREOBRAZHENSKAYA, M.N.; UVAROVA, N.V.; SHEYNKER, Yu.N.; SUVOROV, N.N.

Syn-anti-isomerism of 3-aryl hydrazones of 6-methyl-2,3-piperidinedione. Dokl. AN SSSR 148 no.5:1088-1090 F '63. (MIRA 16:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut im. S.Ordzhonikidze i Institut khimii prirodnykh soyedineniy AN SSSR. Predstavleno akademikom M.M.Shemyakinym.
(Piperidinedione) (Hydrazones) (Isomerism)

SUVOROV, N.N.; SOKOLOVA, L.V.; RYZHKOVA, V.M.; DVORYANTSEVA, G.G.

Microbiological 20 α-reduction of keto steroids with the aid of Bacillus megatherium. Dokl. AN SSSR 152 no.5:1130-1131 O '63. (MIRA 16:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut im. S.Ordzhonikidze i Institut khimii prirodnykh soyedineniy AN SSSR. Predstavleno akademikom M.M.Shemyakinym.

ACCESSION NR: AP4019529 S/0240/64/000/003/0019/0023

AUTHOR: Kuznets, Ye. I. (Candidate of medical sciences); Suvorov, N. N. (Doctor of chemical sciences)

TITLE: Use of biologically active synthetic preparations to increase body heat resistance

SOURCE: Gigiyena i sanitariya, no. 3, 1964, 19-23

TOPIC TAGS: synthetic preparation, biologically active synthetic preparation, body heat resistance, oxidation inhibitor, oxidation inhibiting preparation, cystamine, betamine, betazine, AET, tissue metabolism, increased body heat resistance

ABSTRACT: In a series of experiments the heat resistance of white mice was studied in a heat chamber at 46-50°C after administration of various doses of oxidation inhibiting preparations (betazine, betamine, cystamine, and AET). The rectal temperature of the animals was measured with a copper-constantan thermocouple with an accuracy of 0.1°. Survival of the animals under high-temperature conditions served as the heat resistance index. It was found that preliminary administration of betazine in 50 mg/kg doses 11 times over 22 days

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ACCESSION NR: AP4019529

increased the survival rate by 10%. Cystamine (12.5 mg/kg) and AET (10 mg/kg) administered separately did not affect heat resistance but were effective when these doese were combined. Biologically active synthetic preparations can increase heat resistance by inhibiting oxidation processes in tissues and with further development may enable man to control body heat resistance. Orig. art. has: 3 tables.

ASSOCIATION: Institut gigieny truda i profzabolevaniy AMN SSSR (Institute of Industrial Hygiene and Occupational Diseases AMN SSSR); Vsesoyuzny*y nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut im. S. Ordzhonikidze Minzdrava SSSR, Moskva (All-Union Scientific-Research Chemical Pharmaceutical Institute of the Ministry of Health SSSR)

SUBMITTED: 11Jan63 DATE ACQ: 31Mar64 ENCL: 00

SUB CODE: AM NO REF SOV: 006 OTHER: 000

2/2
Card

/64/000/000/0193/0211

...ovtrov, N. N.

TITLE: The mechanism of the radiation-protective action of indolylalkylamines and

...tazheniy ... sbornik

...manifestation ... the radiation-protective properties of amines of the indole series. The pre-... of the anti-radiation action of indolylalkylamines to their chemical structure was confirmed. The introduction of substitutions in the fifth position of the indole ring of the tryptamine molecule is accompanied by re-... radiation-protective

Card 1/2

L 41616-65
ACCESSION NR: AT5008045

activity. The ability of indole compounds to compete for free radicals is practi- [illegible] the presence of substitutions, but is based on the specific [illegible] of the in- [illegible] are effective for [illegible] has also the clearest changes in blood [illegible] amine or unlabile in- [illegible]

ASSOCIATION: none

SUBMITTED: 19Aug64 ENCL: 00 SUB CODE: LS, OC

NO REF SOV: 017 OTHER: 030

me
Card 2/2

SHASHKOV, V.S.; SAKSONOV, P.P.; ANTIPOV, V.V.; MOROZOV, V.S.; MURIN, G.F.; RAZGOVOROV, B.L.; SUVOROV, N.N.; FEDOSEYEV, V.M.

Efficiency of a pharmacochemical protection against gamma irradiation and irradiation by protons with an energy 660 and 120 Mev. Kosm. issl. 2 no.4:641-647 Jl-Ag '64. (MIRA 17:9)

SHAGALOV, L.B.; SOROKINA, N.P.; SUVOROV, N.N.

Derivatives of indole. Part 21:Synthesis of 4- and 6-chloroindolylbutyric acids. Zhur. ob. khim. 34 no. 5:1592-1595 My '64. (MIRA 17:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni Ordzhonikidze.

SUVOROV, N.N.; SOROKINA, N.P.; TSVETKOVA, G.N.

Derivatives of indole. Part 22: Improved synthesis of tryptamines. Zhur. ob. khim. 34 no. 5:1595-1598 My '64. (MIRA 17:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni Ordzhonikidze.

SUVOROV, N.N.; KLIMOVA, L.I.

Steroid [16,17-c] pyrazoles. Zhur. ob. khim. 34 no.10:3518-3519 O '64. (MIRA 17:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.

SUVOROV, N.N., doktor khimicheskikh nauk

Modern concepts of the biochemistry of physiologically important indole derivatives. Zhur. VKHO 9 no.4:395-404 '64.

(MIRA 17:10)

KOGAN, Leonid.M.; ULEZLO, I.V.; KOZLOVA, I.K.; SUVOROV, N.N.; PORTNOVA,S.L. SKRYAGIN, G.K.; TROGOV,I.V.

Microbiological transformations of steroids. Report N_o.3: Reduction of 17α,21-deoxysteroids by Actinomyces albus 3006. Izv. AN SSSR Ser. khim. no.11:2008-2015 N '64 (MIRA 18:1)

1. Institut khimii prirodnykh soyedineniy AN SSSR i Institut mikrobiologii AN SSSR.

L 27419-66

ACC NR: AP6017695 SOURCE CODE: UR/0220/65/034/003/0407/0410

AUTHOR: Ryzhkova, V. M.; Sokolova, L. V.; Suvorov, N. N. 14

ORG: All-Union Chemical and Pharmaceutical Scientific Research Institute im. S. Ordzhonikidze (Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut) 13

TITLE: Deacetylation of steroid acetates by means of Bacillus megatherium

SOURCE: AN SSSR. Mikrobiologiya, v. 34, no. 3, 1965, 407-410

TOPIC TAGS: bacteria, bacteriology, enzyme

ABSTRACT: Bac. megatherium was found to possess high esterase activity with respect to the acetyl group in the 21st position of the steroid molecule. Acetyl groups in positions 3-beta and 17-beta were deacetylated rather slowly by the microorganism. The steroid esterase of Bac. megatherium was quite inert with respect to the 11 alpha-acetylhydroxy group. The process of deacetylation of the acetyl groups in position 20 was found to be stereo-specific. The alpha-orientation of the acetyl group made it inaccessible to the esterase of Bac. megatherium, whereas the beta-oriented acetyl group was deacetylated as easily as the 21-acetyl group. Orig. art. has: 1 formula and 1 table. [JPRS]

SUB CODE: 06 / SUBM DATE: 31May64 / ORIG REF: 001 / OTH REF: 012

Card 1/1 UDC: 576.8:577.153

PREOBRAZHENSKAYA, M.N.; SUVOROV, N.N.

1-Glycosylindoles. Part 3: Action of nucleophilic agents on α-2,3,4,6-tetra-o-benzylglucopyranosyl bromide. Zhur. ob. khim. 35 no.5:888-893 My '65.

Glycosylindoles. Part 4: 1-(β-tetrabenzyl glucopyranosyl) indole. Ibid.:893-896 (MIRA 18:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni Ordzhonikidze.

L 58393-65 ENG(j)/EWT(m)
ACCESSION NR: AP5013450 UR/0020/65/162/001/0205/0207

AUTHOR: Yarmonenko, S. P.; Konoplyannikov, A. G.; Suvdrov, N. N.; Fedoseyev, V. M.

TITLE: The action of protective agents following irradiation with sublethal doses

SOURCE: AN SSSR. Doklady, v. 162, no. 1, 1965, 205-207

TOPIC TAGS: radioprotective agents, radiation protection, bone marrow, radiation, hemopoiesis

ABSTRACT: The authors' experiments seem to refute the view that radioprotective agents have little or no value when low doses of radiation are used if one accepts as a criterion of protection the agents' effect on loss of bone-marrow cells rather than on deaths of experimental animals. Their experiments involved 1900 white rats [illegible] whole-body x-irradiation with 270, 400, and 700 r. The animals were injected intraperitoneally with the rad protective agents s, β-aminoethylisothiuronium bromide and β-methoxytryptamine hydrochloride 15 minutes before irradiation. At the time of maximum deposit of bone marrow (3 days after irradiation),

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L 58393-65
ACCESSION NR: AP5013450

2

the protected animals, regardless of the irradiation dose used, had 2½-3 million more cells (10-12% of the total cell population) than did the control. Thus, the value of the factor of decrease in dose as a criterion of the protective agent's [illegible] remains constant, regardless of the [illegible] in these experiments.

ASSOCIATION: Institut gigiyeny truda i profzabolevaniy Akademii meditsinskikh nauk SSSR (Institute of Industrial Hygiene and Occupational Diseases, Academy of Medical [illegible] A.I. Ivanov Chemicopharmaceutical Institute)

SUBMITTED: 13Jan65 ENCL: 00 SUB CODE: LS

NO REF SOV: 010 OTHER: 002

Card 2/2 ADP

ZHAROVA, Ye.I.; PROTASOVA, T.G.; KHRUSTALEV, S.A.; PREOBRACHENSKAYA, M.N.; SUVOROV, N.N.; RAUSHENBAKH, M.O.

Leukemogenic (blastomogenic) properties of some compounds of the indole series. Report No.2. Probl. gemat. i perel. krovi. no.6:38-42 '65. (MIRA 18:11)

1. TSentral'nyy ordena Lenina institut gematologii i perelivaniya krovi (dir. - dotsent A.Ye.Kiselev) Ministerstva zdravookhraneniya SSSR, i Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut (dir. - prof. M.K.Rubtsov), Moskva.

SHCHUKINA, I.A.; SUVOROV, N.N.; NEKLYUDOV, A.D.; SAMOKINA, N.P.

Synthesis of melatonin analogs. Izv.AN SSSR. Ser.khim. no.1:107-111 '66. (MIRA 19:1)

1. Institut khimii prirodnykh soyedineniy AN SSSR. Submitted August 1, 1963.

PREOBRAZHENSKAYA, M.N.; ORLOVA, L.M.; SAVEL'YEVA, [illegible]; KISIN, A.V.; ZARETSKIY, V.I.; VUL'FSON, N.S.; SUVOROV, [illegible]

Synthesis and study of racemic indolemycin and isoindolemycin acids. Dokl. AN SSSR 166 no.3:611-614 Ja '66.

(MIRA 19:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut im. S.Ordzhonikidze i Institut khimii prirodnykh soyedineniy AN SSSR. Submitted May 4, 1965.

VERKHOVTSEVA, M.I.; RUBAN, Ye.L.; SUVOROV, N.N.

Tryptophan isolation from the culture fluid with the help of ion-exchange resins. Prikl. biokhim. i mikrobiol. 1 no.5: 585-586 S-O '65. (MIRA 18:11)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni Mendeleyeva.

SUVOROV, N.P.

The MK-99 automatic machine. Biul.tekh.-ekon.inform. no.2:31-33 '59.
(MIRA 12:3)
(Drilling and boring machinery)

SUVOROV, N.P.

The 1K857 automatic machine tool. Biul. tekh. ekon. inform. no.9:32-33 '59. (MIRA 13:3)
(Machine tools) (Automatic control)

SUVOROV, N.P. (Moskva)

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USSR/Chemistry - Thermodynamics Jul/Aug 51

"Table of Thermodynamic Formulas," N. P. Suvorov, Moscow

"Uspekh Khim" Vol XX, No 4, pp 495-497

Advocates replacing P. W. Bridgman's thermodynamic formulas (P. W. Bridgman, "A Condensed Collection of Thermodynamic Formulas," Harvard U Press, 1925) with K. A. Putilov's formulas (K. A. Putilov, "Lectures on Thermodynamics No 3, Lecture No 7, Thermodynamic Values and Relationships Between Them," U of Phys Chem and Chem Technol imeni Acad N. D. Zelinskiy, 1939), which he considers more logical. Lists the latter.

191T6

SUVOROV, N. P.

Teachers, training of

Training of physics teachers in pedagogical institutes. Fiz. v shkole No. 5, 1952.

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I.I.Sokolov, outstanding Soviet physicist and specialist of methodology; on his 80th birthday. Fiz. v shkole 14 no.5:87-89 S-O '54. (MLRA 7:9)
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USSR/General Section - Problems of Teaching. A-5

Abs Jour : Referat Zhur - Fizika, No 4, 1957, 8247

Author : N.P. Suvorov
Inst :
Title : On the Professional and Polytechnical Preparation of the Teacher at the Physical-Mathematical Faculty of Pedagogical Institute.

Orig Pub : Izv. akad. ped. nauk RSFSR, 1955, vyp.74, 171-183.

Abstract : No abstract.

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ZHDANOV, Leonid Sergeyevich; KHLEBNIKOV, Nikolay Ivanovich; SUVOROV, N.P. redaktor; RYDNIK, V.I., redaktor; TUMARKINA, N.A., tekhnicheskiy redaktor

[A course in physics for technical schools] Kurs fiziki dlia tekhnikumov. Pod red. N.P. Suvorova. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry. Pt.1. [Mechanics and molecular physics] Mekhanika i molekuliarnaia fizika. 1956. 391 p. (MLRA 10:5)
(Mechanics) (Molecular dynamics)

ZHDANOV, Leonid Sergeyevich; KHLEBNIKOV, Nikolay Ivanovich; SUVOROV, N.P., red.; RYDNIK, V.I., red.; AKHLAMOV, S.N., tekhn.red.

[A course in physics for engineering schools] Kurs fiziki dlia tekhnikumov. Moskva, Gos.izd-vo tekhniko-teoret. lit-ry, 1957. Pt.2. [Electricity, optics, physics of the atom and the atomic nucleus] Elektrichestvo, optika, fizika atoma i atomnogo iadra. Pod red. N.P.Suvorova. 488 p. (MIRA 11:2)
(Physics)

47-5-5/16

AUTHOR: Suvorov, N.P. (Moskva)

TITLE: 40 Years of Literature on Physics Teaching Methods (Literatura po metodike fiziki za 40 let)

PERIODICAL: Fizika v Shkole, September-October 1957, No 5, pp 37-44 (USSR)

ABSTRACT: The article begins by enumerating the literature published on physics and its teaching since 1873. In a more or less chronological order it points to several valuable books, one translated from German, and states that in 1917 Russia had excellent teachers and a considerable literature on the method of teaching physics. The October revolution did away with the various types of upper and secondary schools and established the unified Soviet polytechnical school. The book of Professor G.G. De-Metts, Kiyev, "The General Method of Teaching Physics" (Obshchaya metodika prepodovaniya fiziki) published 1929, contains in its bibliography more than 700 titles in the Russian and Ukrainian languages. Here and there the article points to the strengthening of the Marxian-Leninist ideological basis in the schools' educational work and the problem of polytechnical instruction.
The article cites one Slavic reference.

AVAILABLE: Library of Congress

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The Teacher Must Receive a Diploma Corresponding to His Knowledge

chemistry and physics. He refers to Professor V.A. Izmail'skiy's report "On the Training of Teachers of Chemistry at Pedagogical Institutes" which was discussed on March 1953 by a large conference of the Institut teorii i istorii pedagogiki Akademii pedagogicheskikh nauk RSFSR (Institute of Theory and History of Pedagogics, RSFSR Academy of Pedagogical Sciences). The report proved the inadequacy of the training of teachers of chemistry at pedagogical institutes. Yet it was only now, after 5 years and subsequent to the May plenum of the TsK KPSS, that the Board of the RSFSR Ministry of Education adopted a resolution which realized both Professor V.A. Izmail'skiy's suggestion and that of the Mendeleyev Society. The author quotes the resolution, and states that the Ministry should discontinue qualifying persons as teachers of chemistry, who have graduated from the biological-soil faculties of universities and faculties of

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SOV/3-59-4-7/42

22(1)

AUTHOR: Suvorov, N.P., Candidate of Physico-Mathematical Sciences

TITLE: The School Waits for an All-Round Educated Teacher

PERIODICAL: Vestnik vysshey shkoly, 1959, Nr 4, pp 24-29 (USSR)

ABSTRACT: The author examines the way teachers are being trained at present and expresses his opinion on changing the training of those who will work in the reorganized secondary "labor" school (trudovaya srednyaya shkola). What strikes him is the diversity of training which, in the majority of cases, is regarded as insufficient. In most of the pedagogical schools the training of teachers was carried out within 2 years after graduating from a 10-year school. It was therefore expedient to establish, in several pedagogical institutes, departments of methods in elementary training. In 1958, there were already 39 such departments. The graduates comply with paragraph 33 of the Law which provides that all schools will be gradually staffed with teachers having higher education. It is urged that the correspondence training of teachers for the first classes of secondary schools be broadly developed

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